

## **I. PHOTON TRANSFER CURVE**

The photon transfer curve obtained for this CCD with the default operating voltages is presented in Fig. 1 and Fig. 3. The same data is used for a linearity test, and the results are presented in Fig. 2 and Fig. 4.

## **II. H CLOCK SCAN**

The following measurements were performed with a flat illumination and 20 sec exposure. With about 10000e in the center of the device.

### **A. H+**

The transition between the serial overscan and the exposed area is presented in Fig. 7 for the RH amplifier. The CTI as a function of H+ is shown in Fig. 8.

The transition between the overscan and the exposed area is presented in Fig. 9 for the LH amplifier. The CTI as a function of H+ is shown in Fig. 10.

### **B. H-**

The transition between the overscan and the exposed area is presented in Fig. 9 for the LH amplifier. The CTI as a function of H- is shown in Fig. 10.

## **III. V CLOCK SCAN**

The following measurements were performed with a flat illumination and 20 sec exposure. With about 10000e in the center of the device.

### **A. V+**

The transition between the parallel overscan and the exposed area is presented in Fig. 15 for the LH amplifier. The CTI as a function of V+ is shown in Fig. 16.

## B. $V^-$

The transition between the parallel overscan and the exposed area is presented in Fig. 17 for the LH amplifier. The CTI as a function of  $V^-$  is shown in Fig. 18.

## IV. OG TRANSFER

In order to see charge injection into the CCD, and be able to determine the  $V_{th}$  for the device. The Output Gate (OG) voltage was varied for different values of the  $V_{ref}$ . The results are shown in Fig. 19 and 20.

## V. DEFECTS

The defective columns are found by looking at a flat exposure and determining those columns that are more than 5 sigma away from the local average. The results are shown in Fig. 23.

## Figures

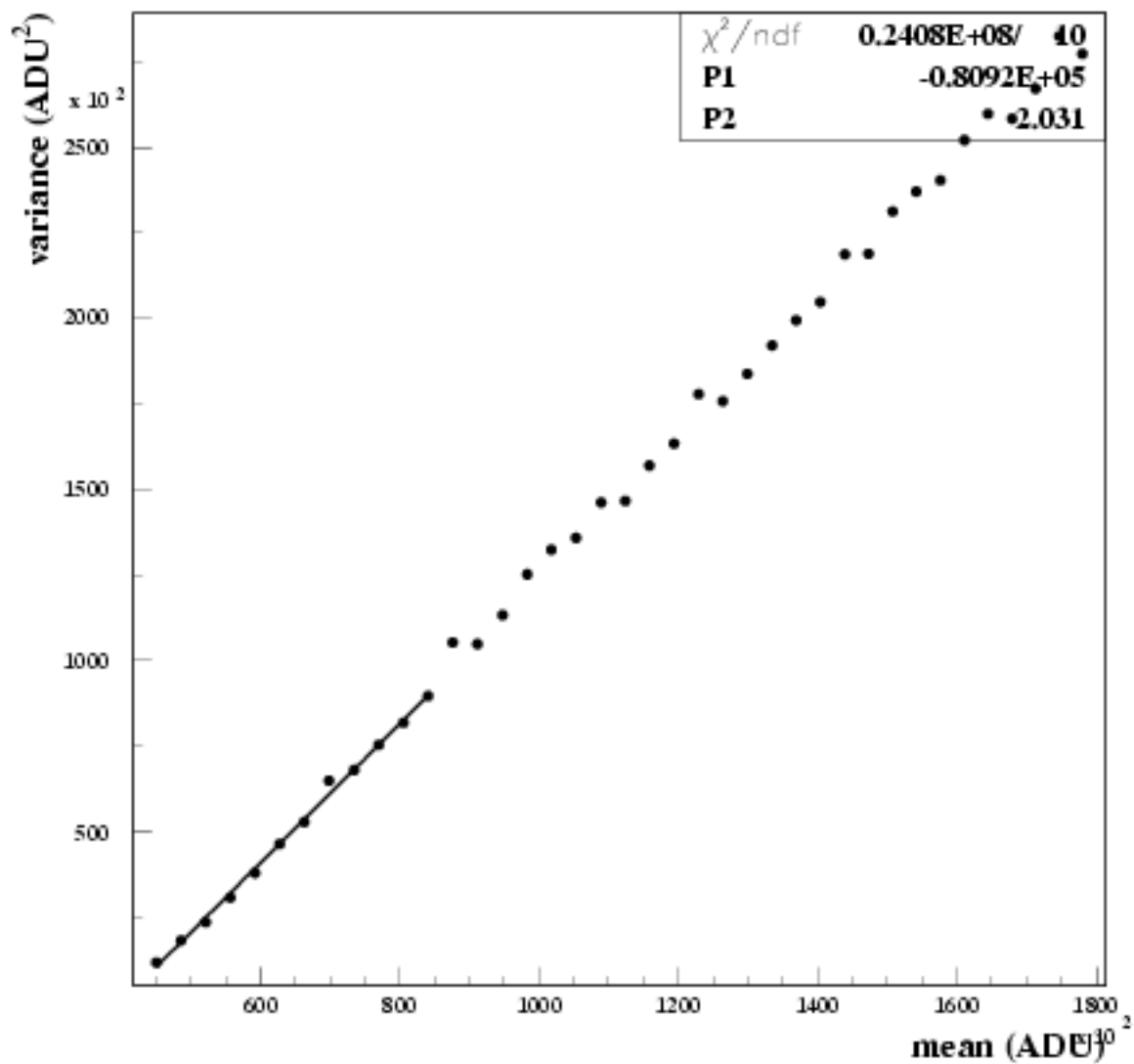


Figure 1: Photon transfer curve for the RH amplifier. The line corresponds to a linear fit to the data, the parameters for the linear fit are shown in the plot.

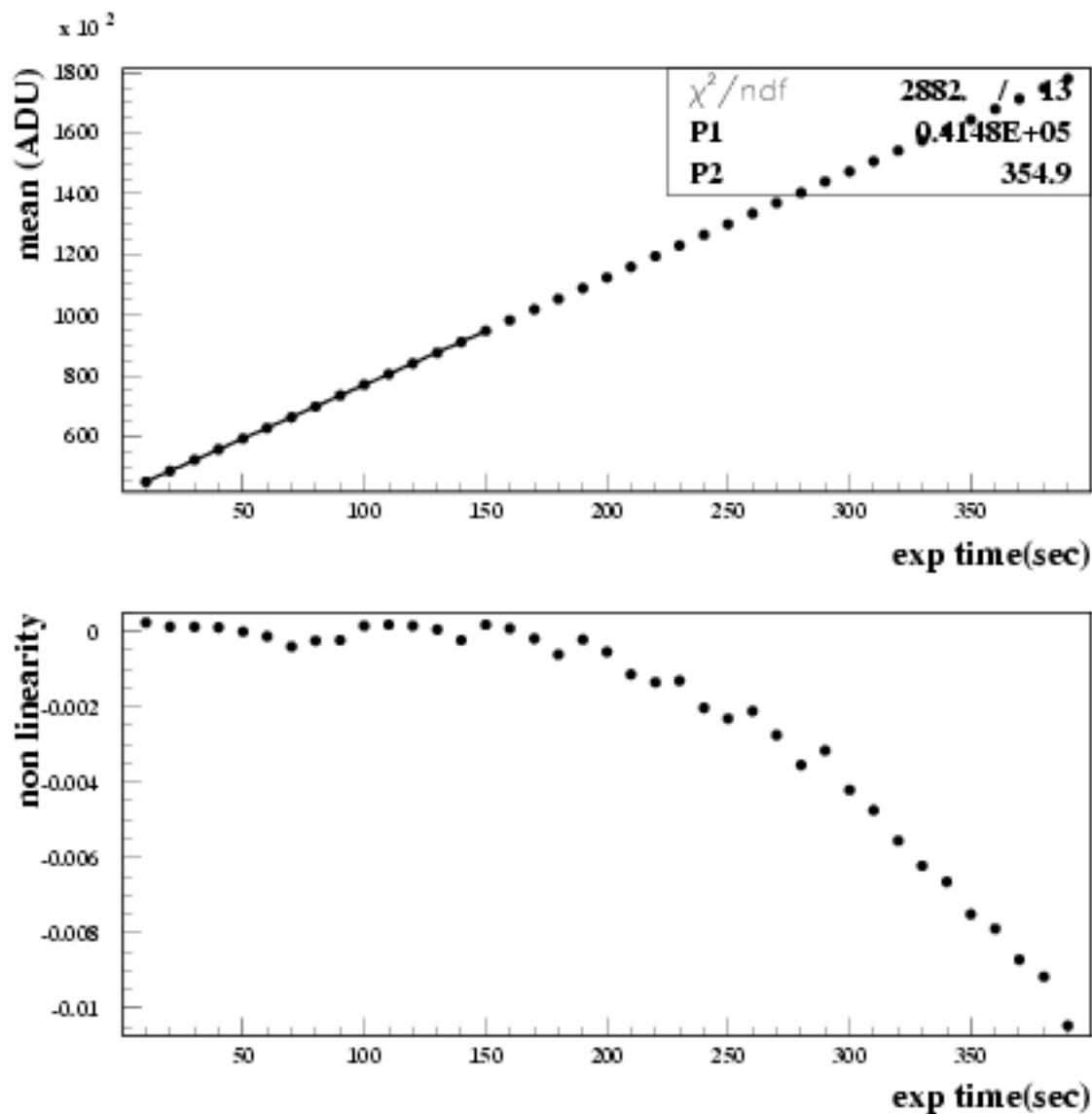


Figure 2: Top: Mean ADU as a function of exposure time. The line corresponds to a linear fit, and the parameters are included in the plot. Bottom: The fractional difference between the linear fit and the data in the top panel.(RH amplifier)

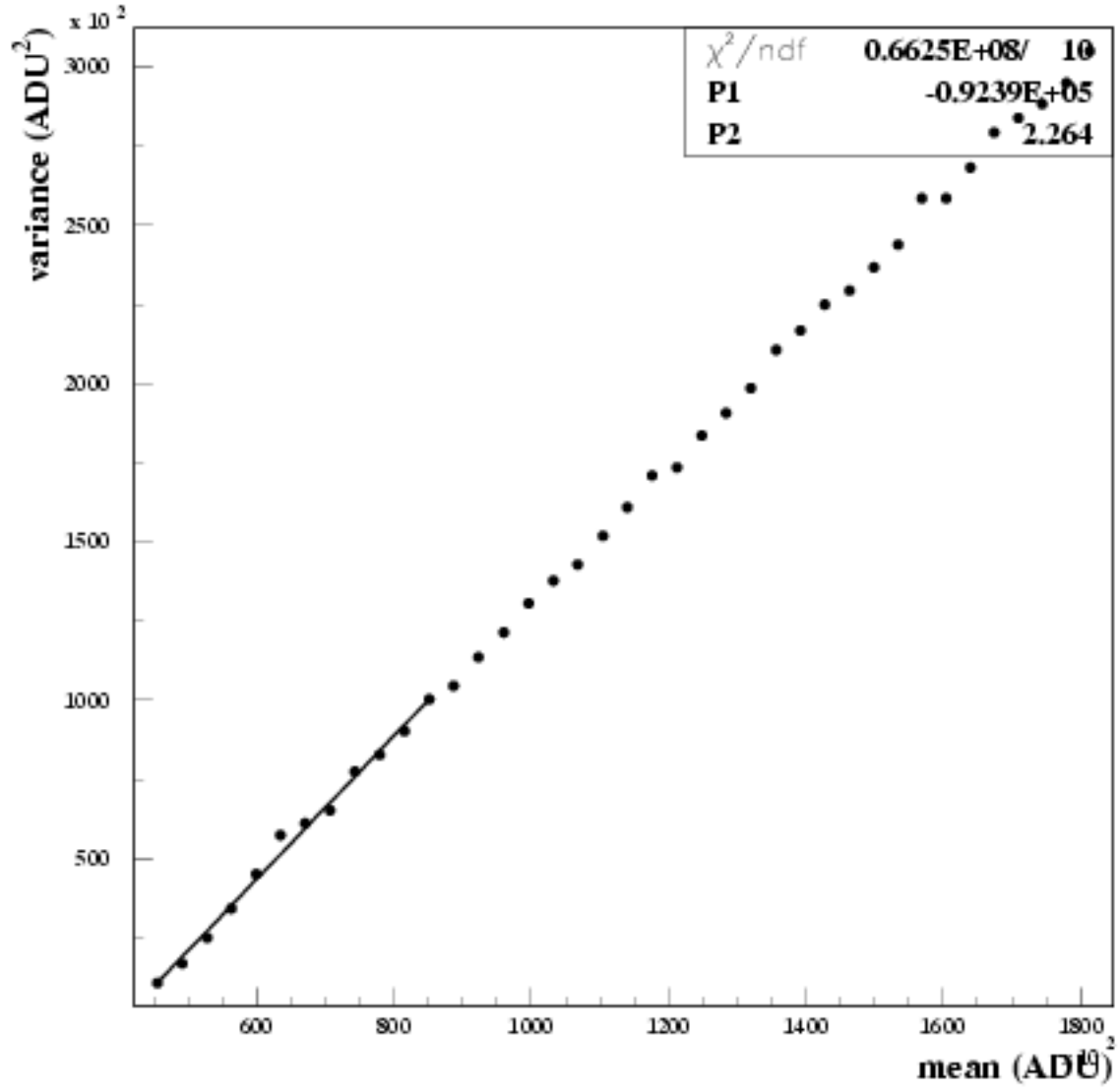


Figure 3: Photon transfer curve for the LH amplifier. The line corresponds to a linear fit to the data, the parameters for the linear fit are shown in the plot.

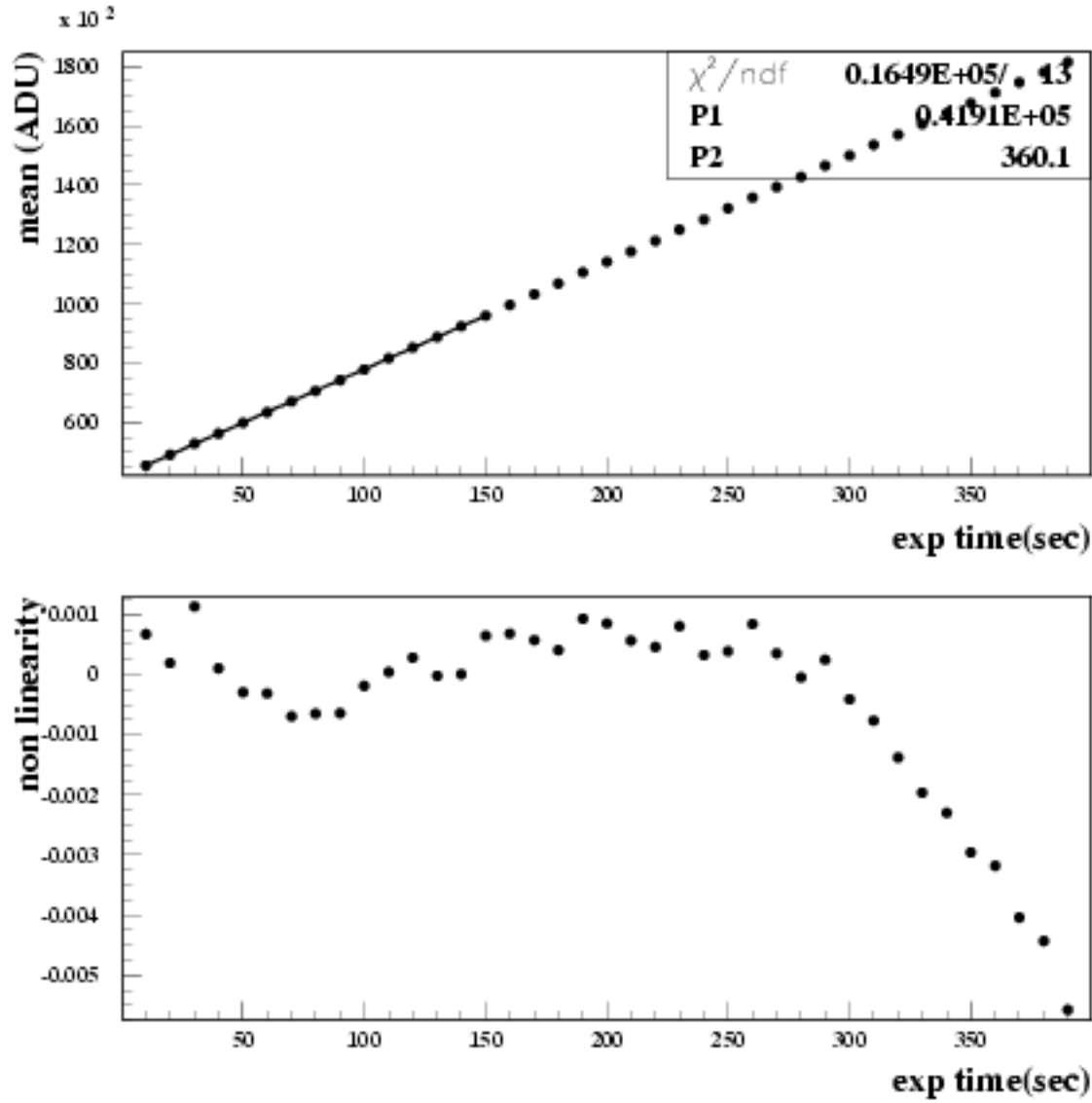


Figure 4: Top: Mean ADU as a function of exposure time. The line corresponds to a linear fit, and the parameters are included in the plot. Bottom: The fractional difference between the linear fit and the data in the top panel.(LH amplifier)

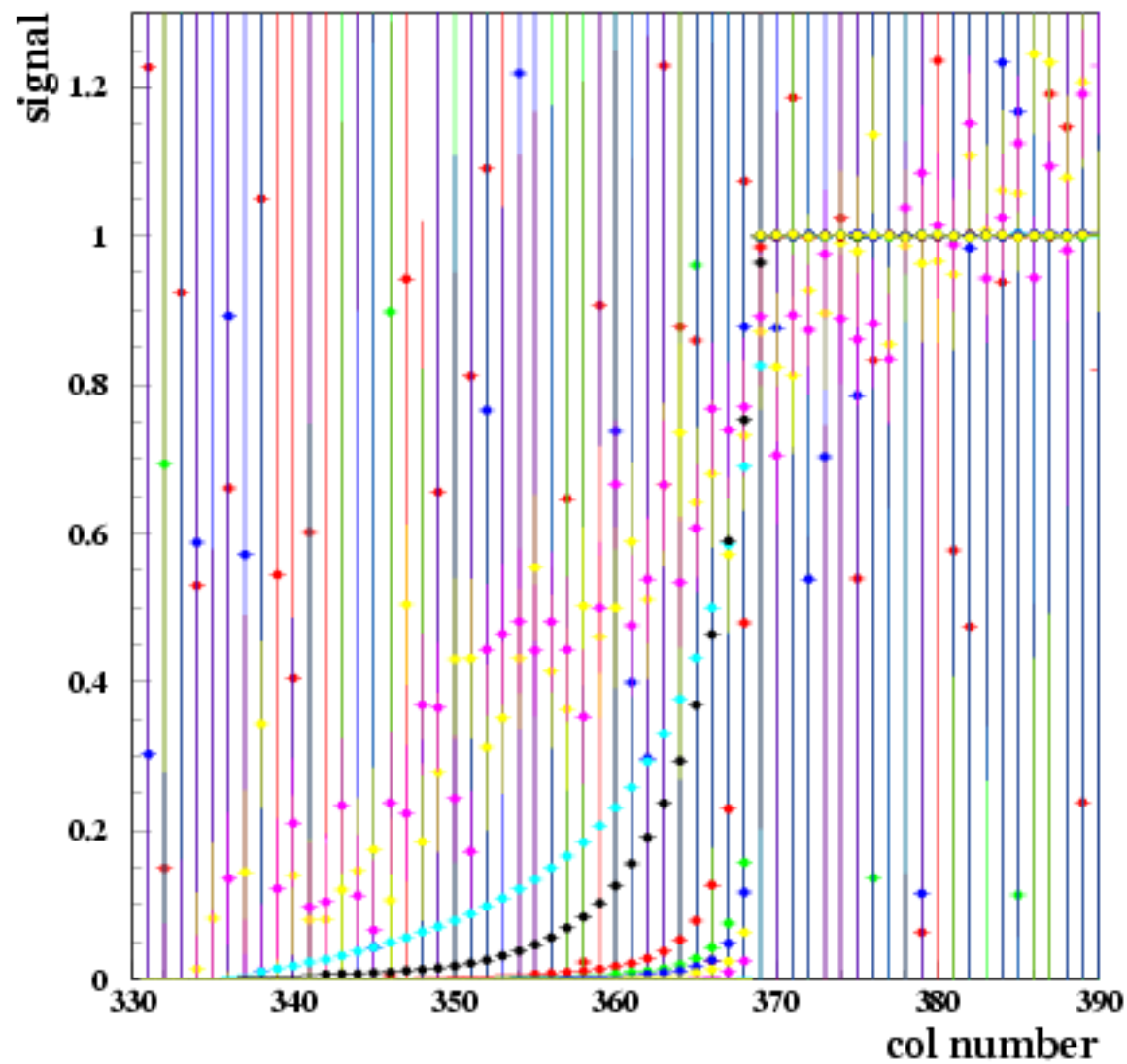


Figure 5: Transition from the overscan region (left) to the exposed area (right) for the RH amplifier of the CCD.

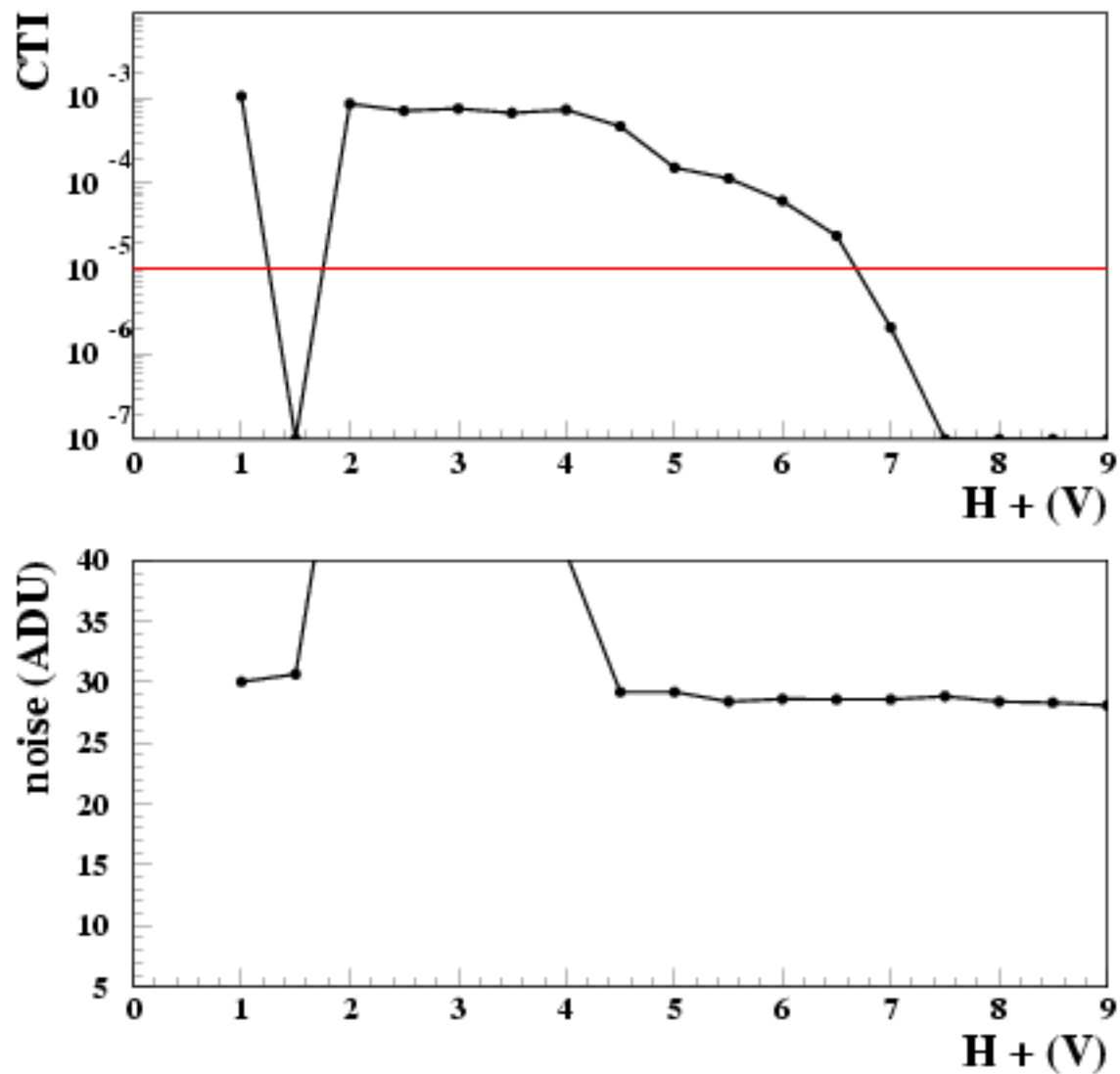


Figure 6: Top: Horizontal Charge Transfer Inefficiency as a function of H+ voltage. Bottom: Noise (RMS in the overscan region) as a function of the H+ voltage. (Both for the RH amplifier)



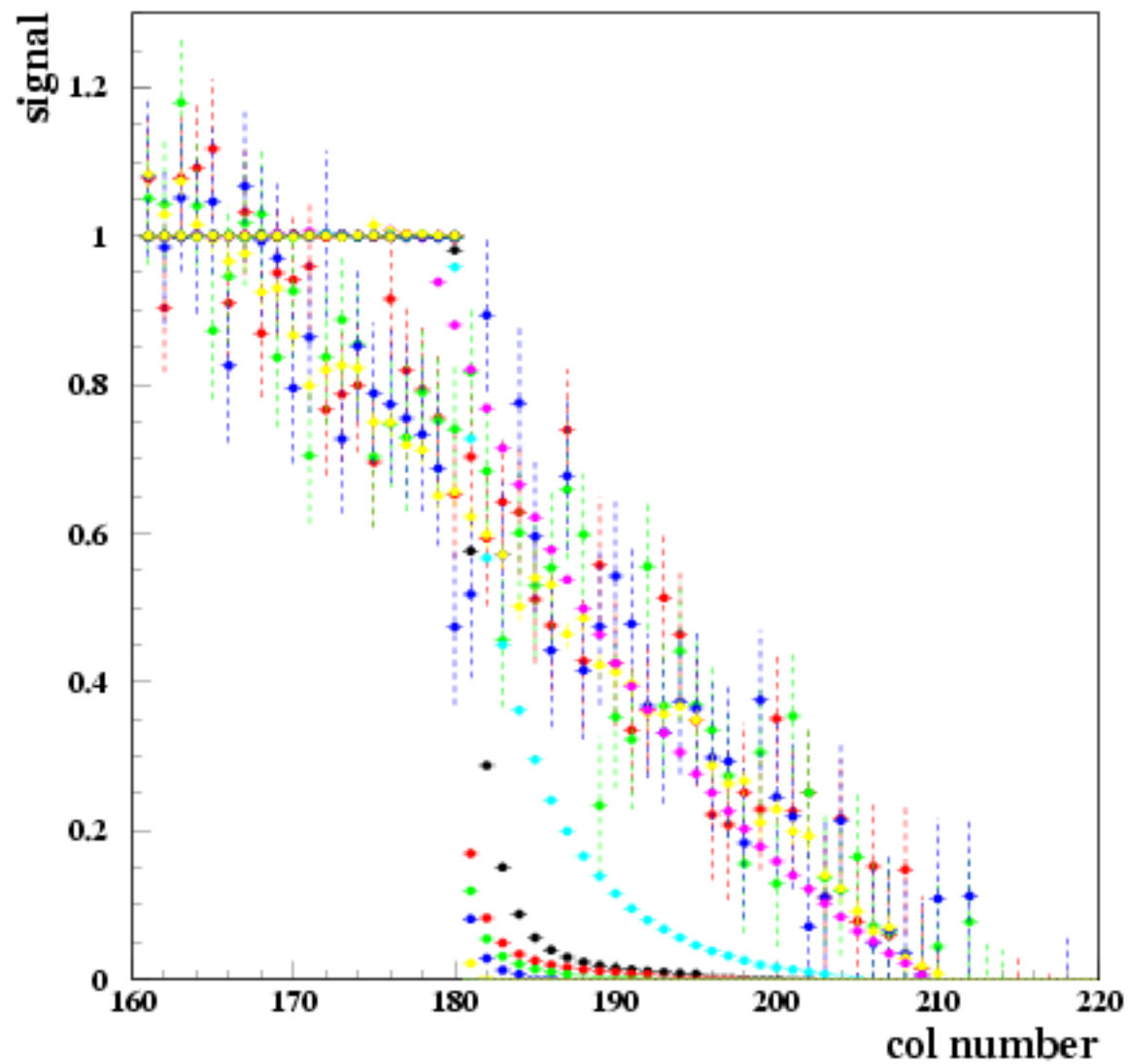


Figure 7: Transition from the overscan region (right) to the exposed area (left) for the LH amplifier of the CCD.

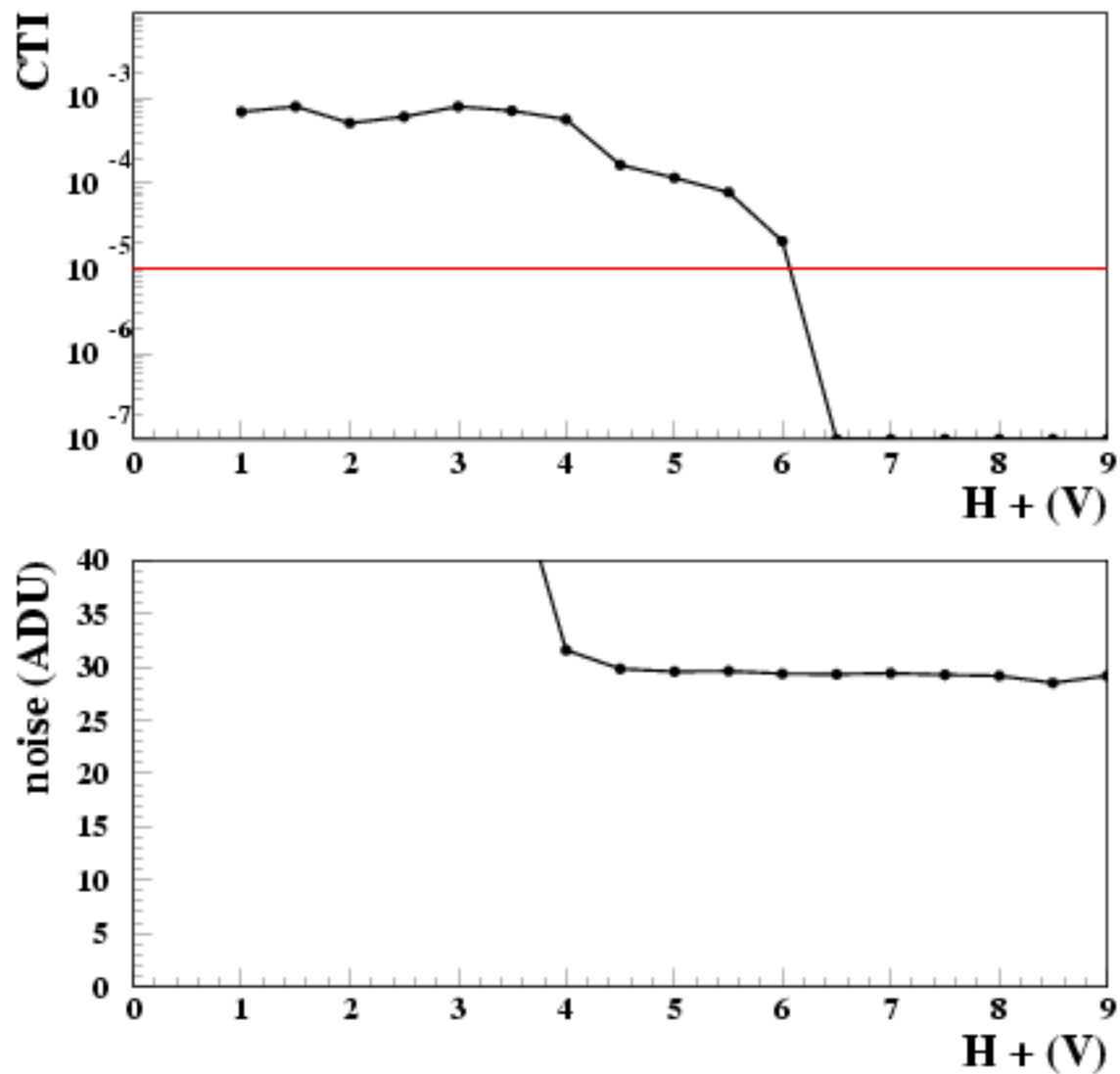


Figure 8: Top: Horizontal Charge Transfer Inefficiency as a function of H+ voltage. Bottom: Noise (RMS in the overscan region) as a function of the H+ voltage. (Both for the LH amplifier)

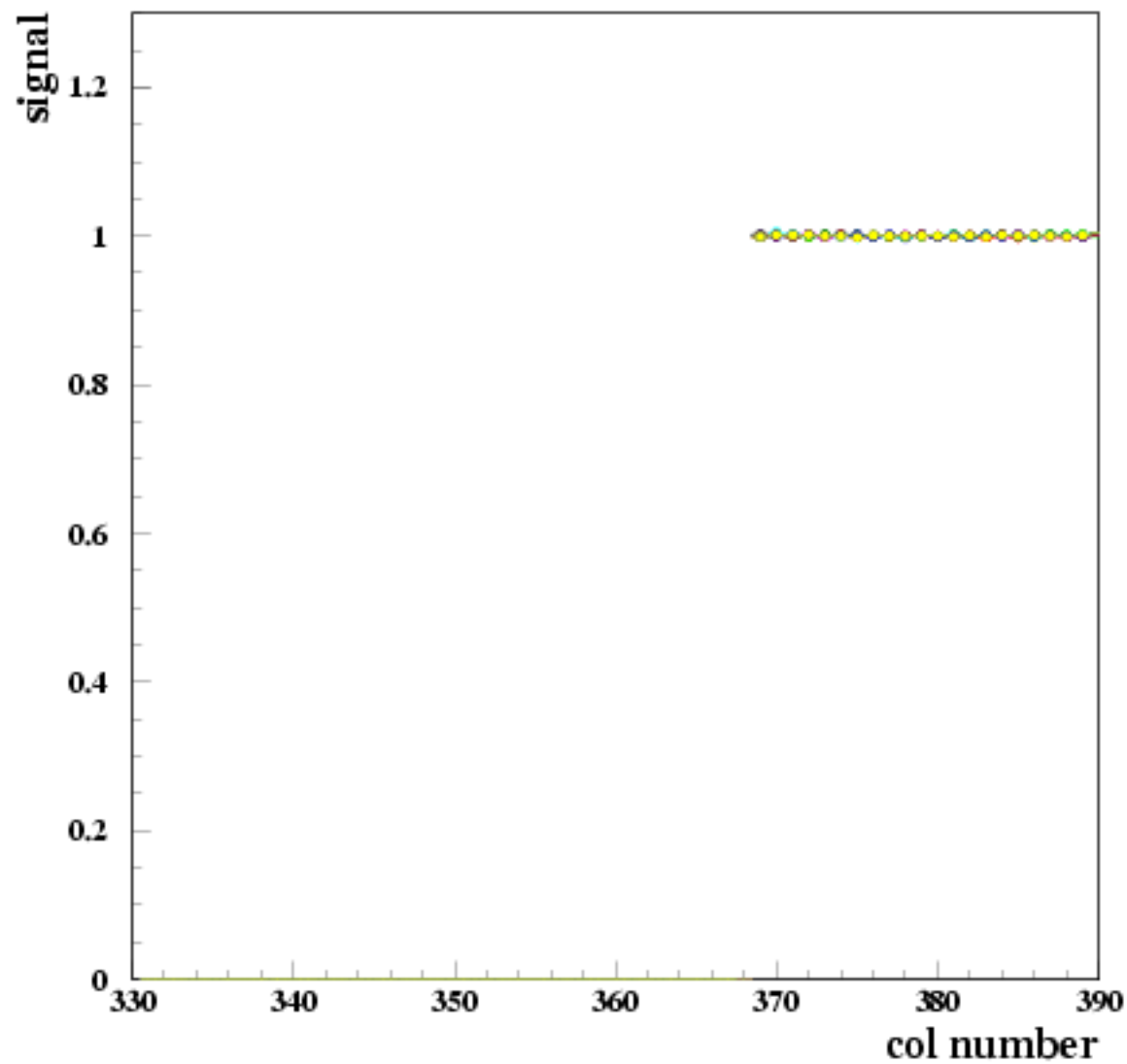


Figure 9: Transition from the overscan region (left) to the exposed area (right) for the RH amplifier of the CCD.

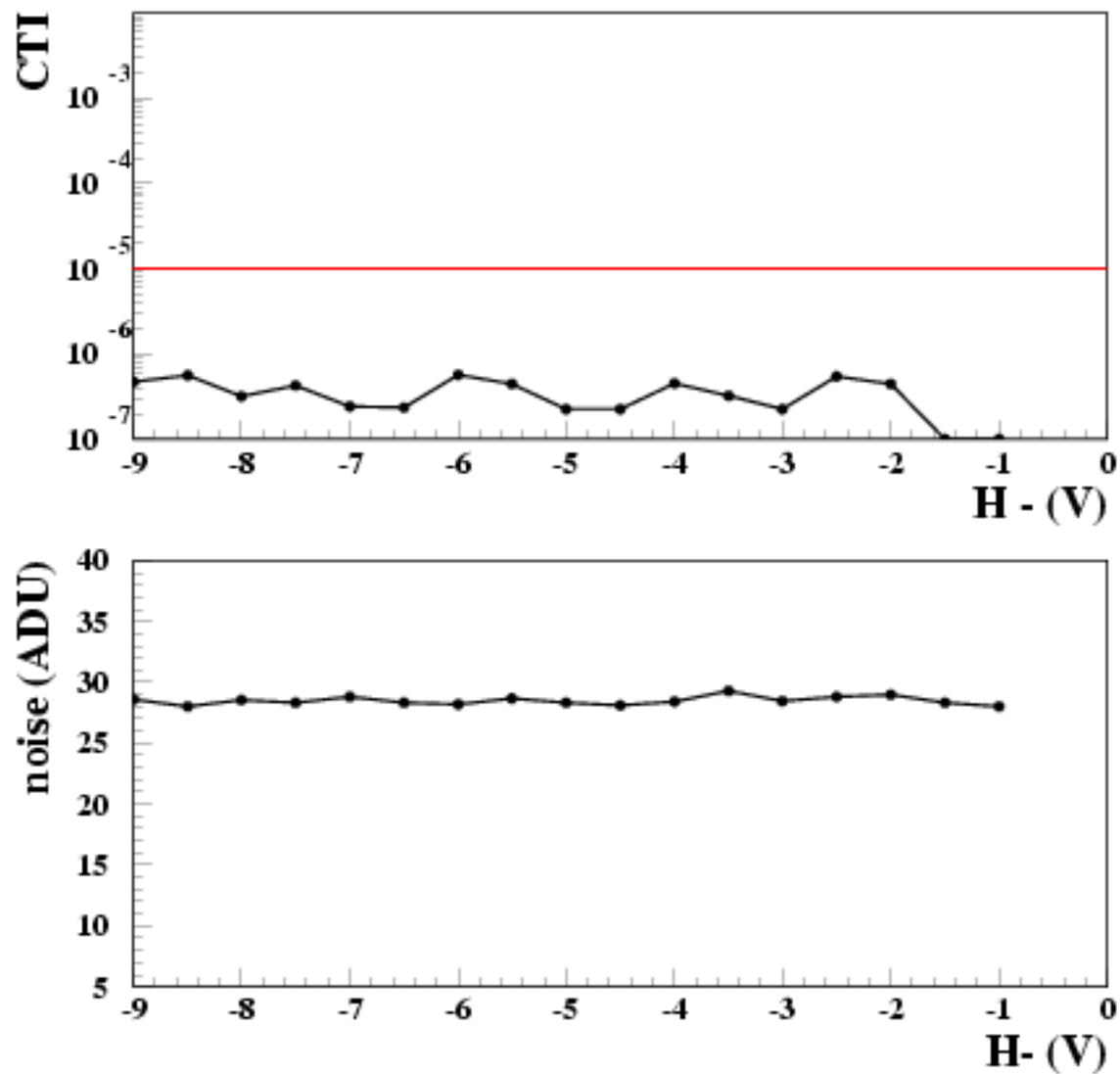


Figure 10: Top: Horizontal Charge Transfer Inefficiency as a function of H- voltage. Bottom: Noise (RMS in the overscan region) as a function of the H- voltage. (Both for the RH amplifier)

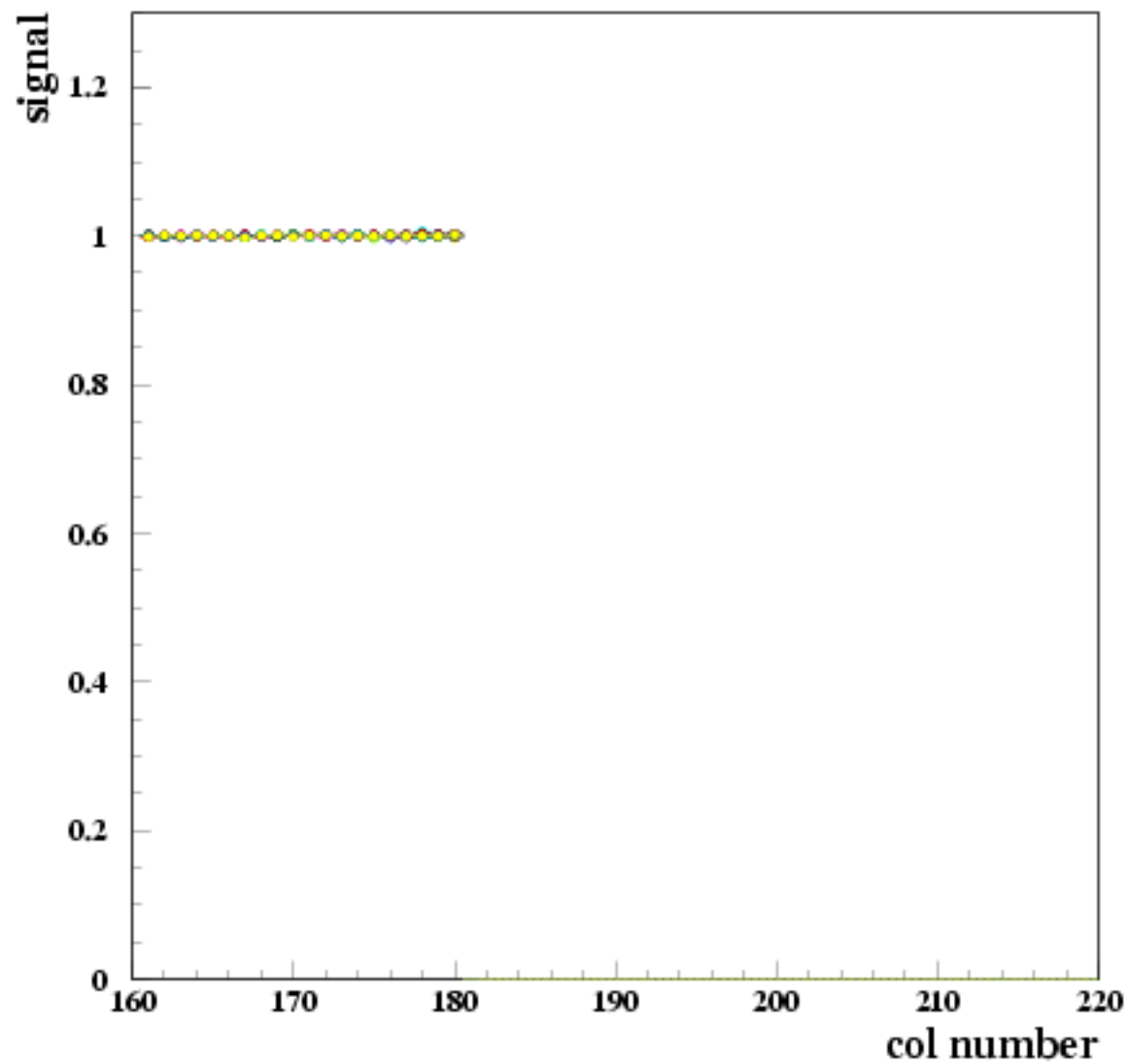


Figure 11: Transition from the overscan region (right) to the exposed area (left) for the LH amplifier of the CCD.

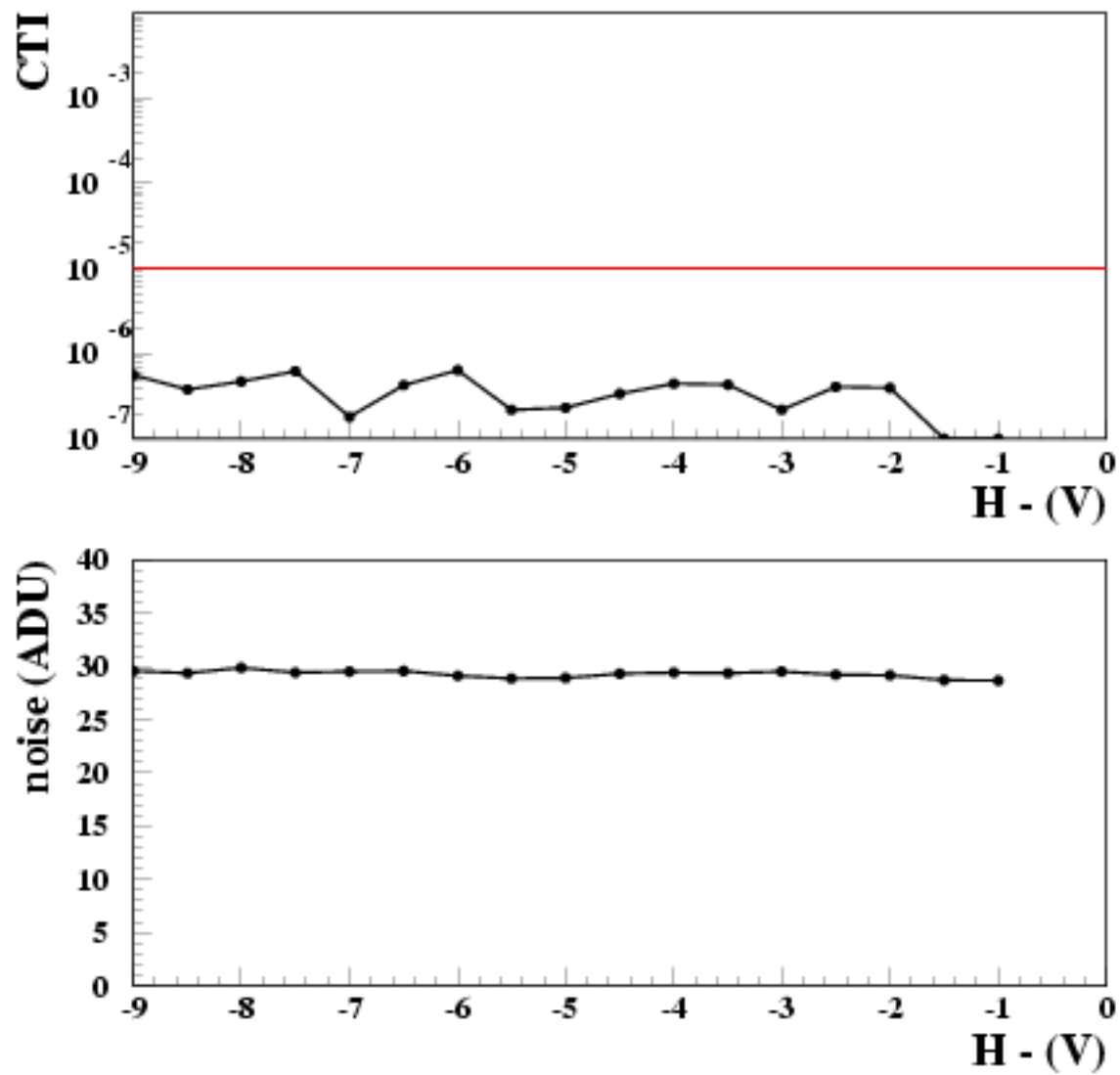


Figure 12: Top: Horizontal Charge Transfer Inefficiency as a function of H- voltage. Bottom: Noise (RMS in the overscan region) as a function of the H- voltage. (Both for the LH amplifier)

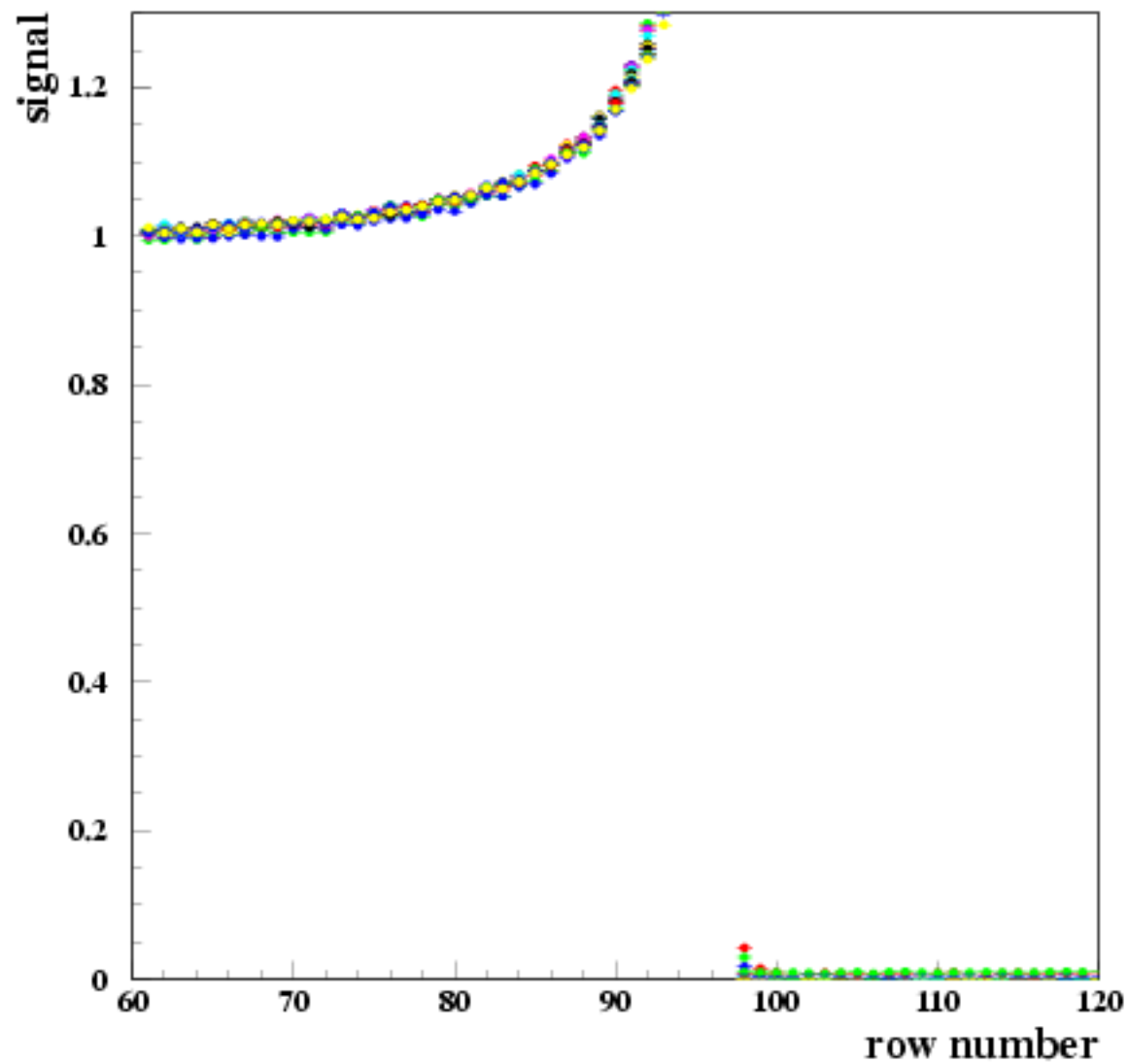


Figure 13: Transition between the parallel overscan in the right to the exposed area in the left. The different colors correspond to different values of  $V_+$ .

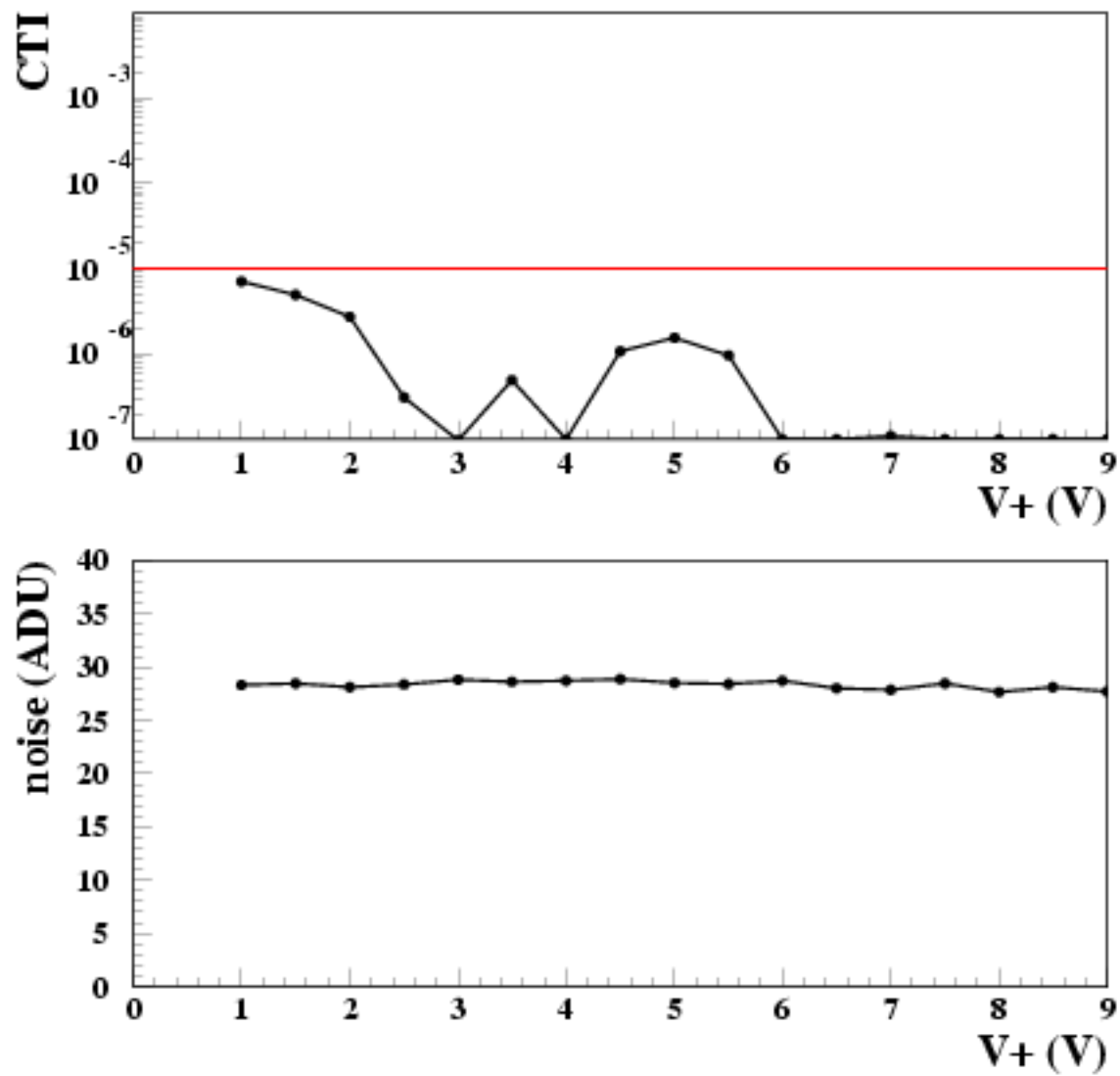


Figure 14: Top: Vertical CTI as a function of  $V_+$ . Bottom: Measured noise as a function of  $V_+$ .



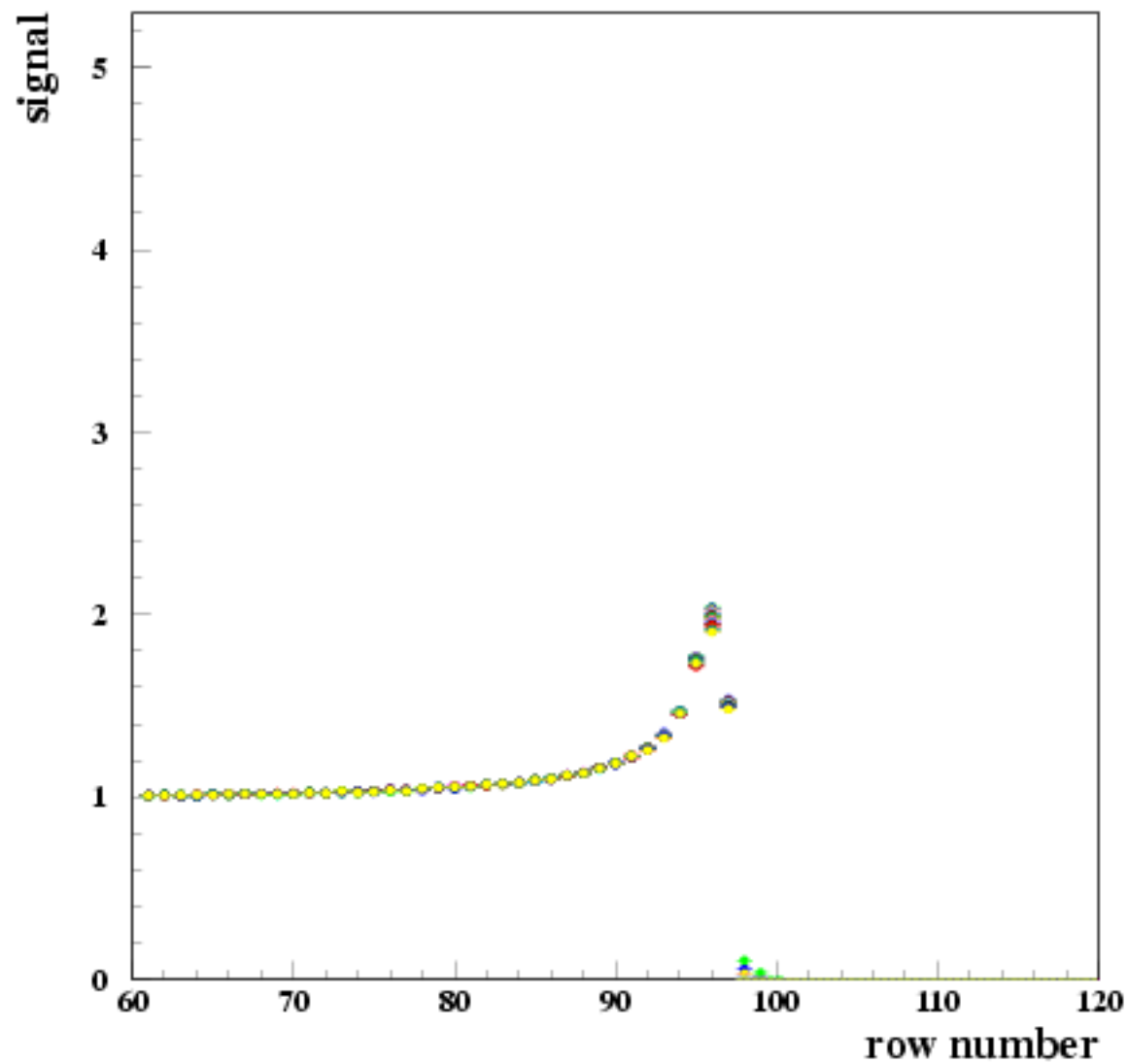


Figure 15: Transition between the parallel overscan in the right to the exposed area in the left. The different colors correspond to different values of  $V_-$ .

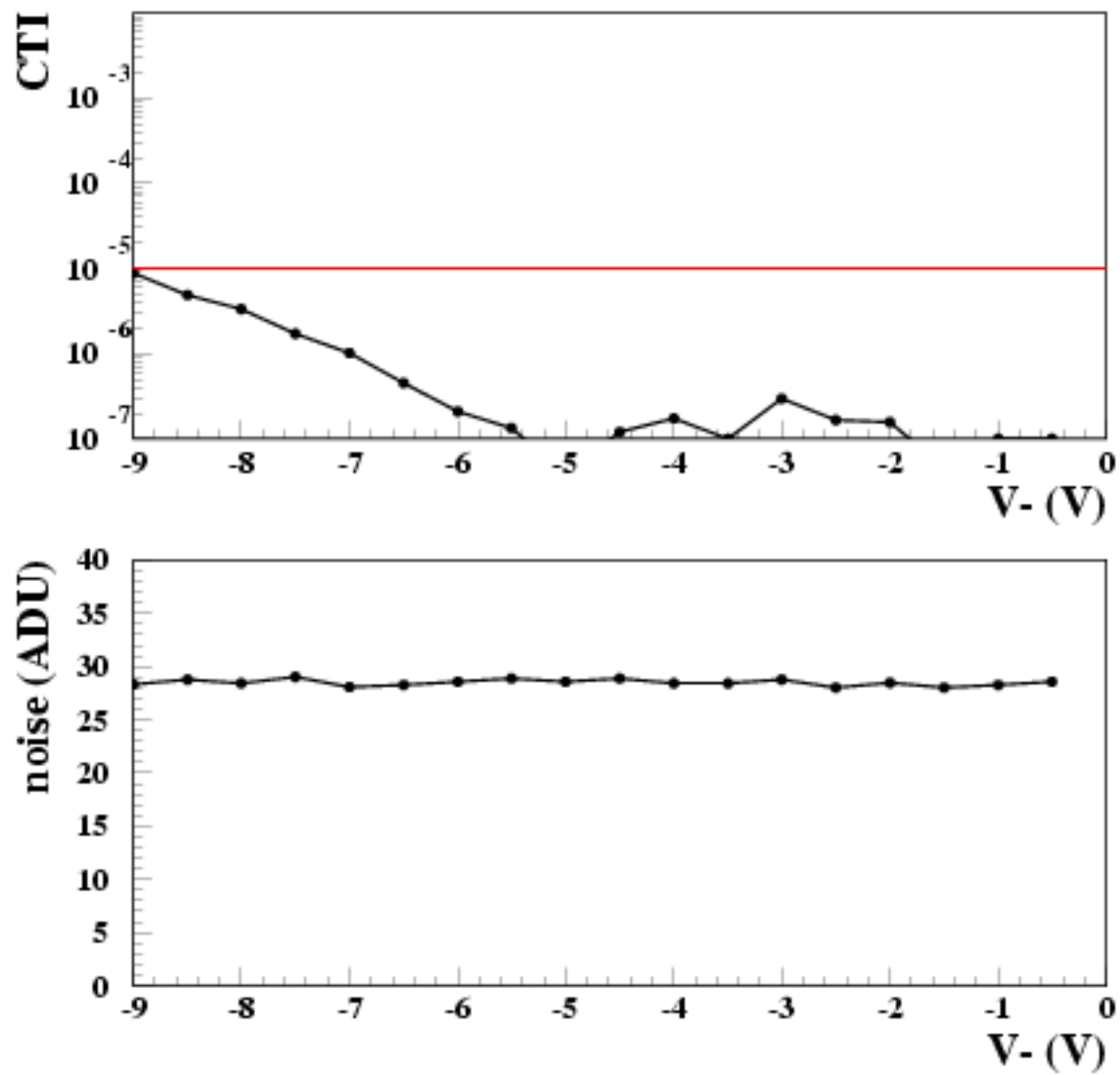


Figure 16: Top: Vertical CTI as a function of  $V_-$ . Bottom: Measured noise as a function of  $V_-$ .

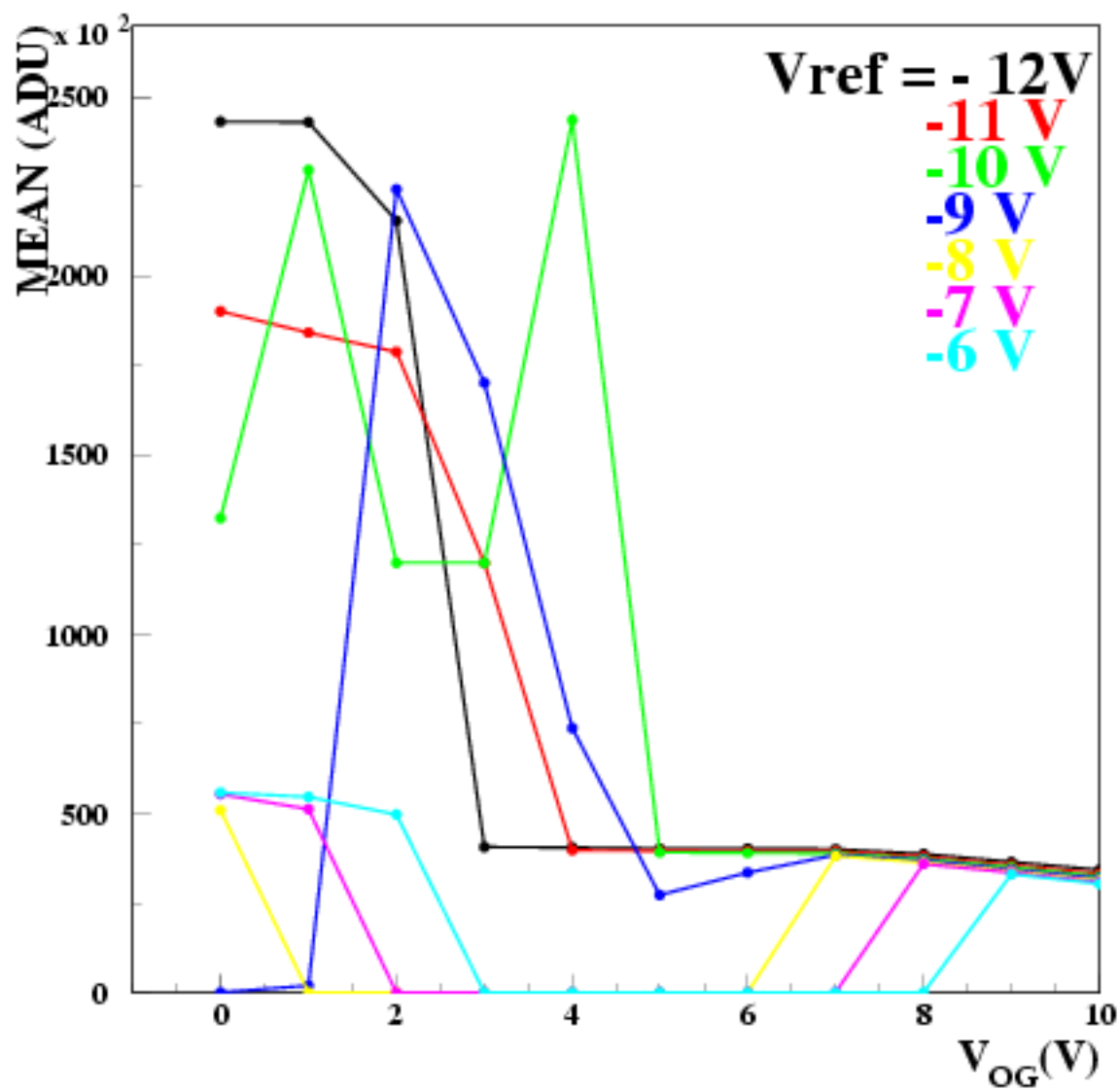


Figure 17: Mean in the overscan region as a function of  $V_{OG}$  for different values of  $V_{ref}$ . (RH amplifier)

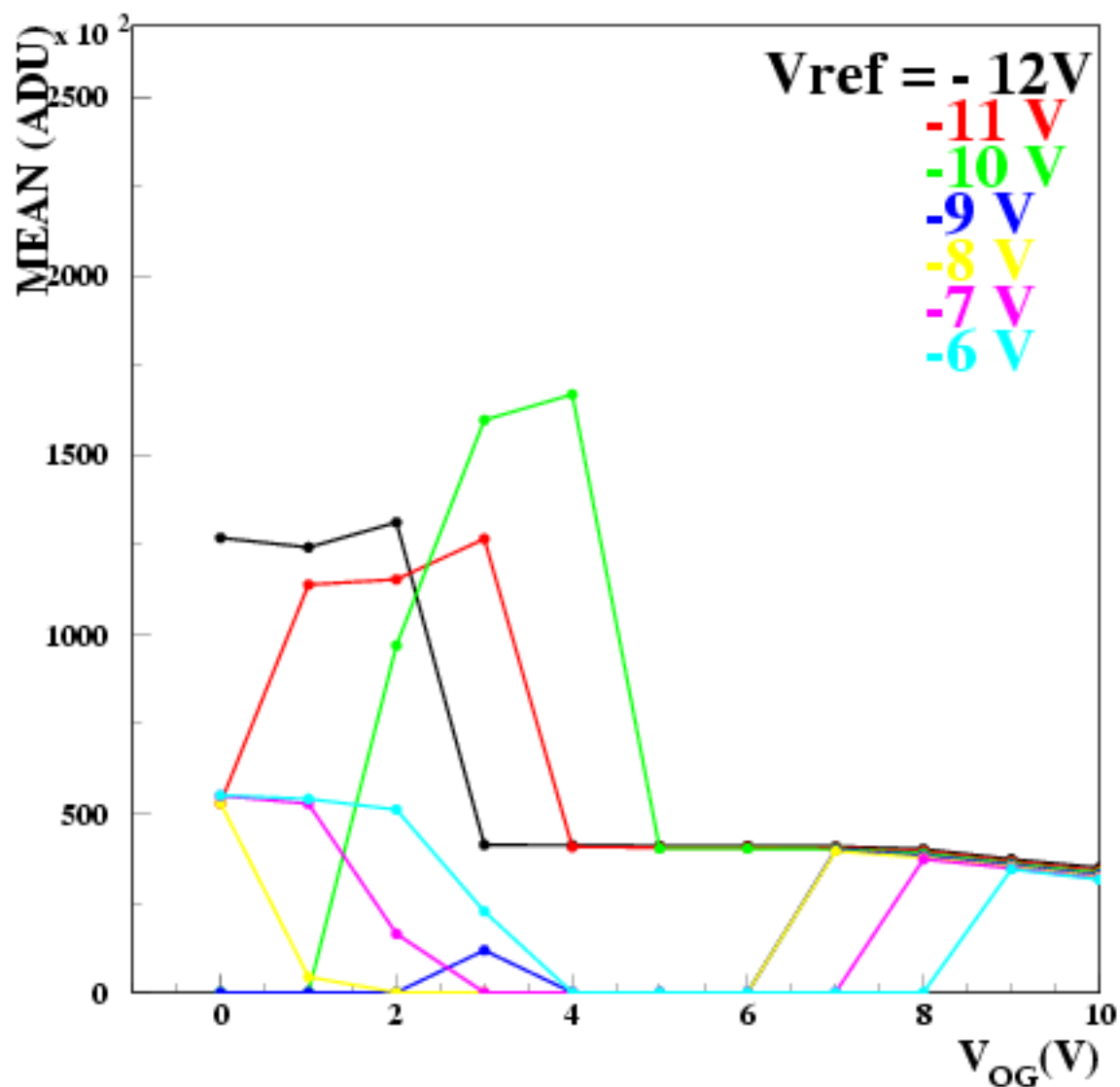


Figure 18: Mean in the overscan region as a function of  $V_{OG}$  for different values of  $V_{ref}$ . (LH amplifier)

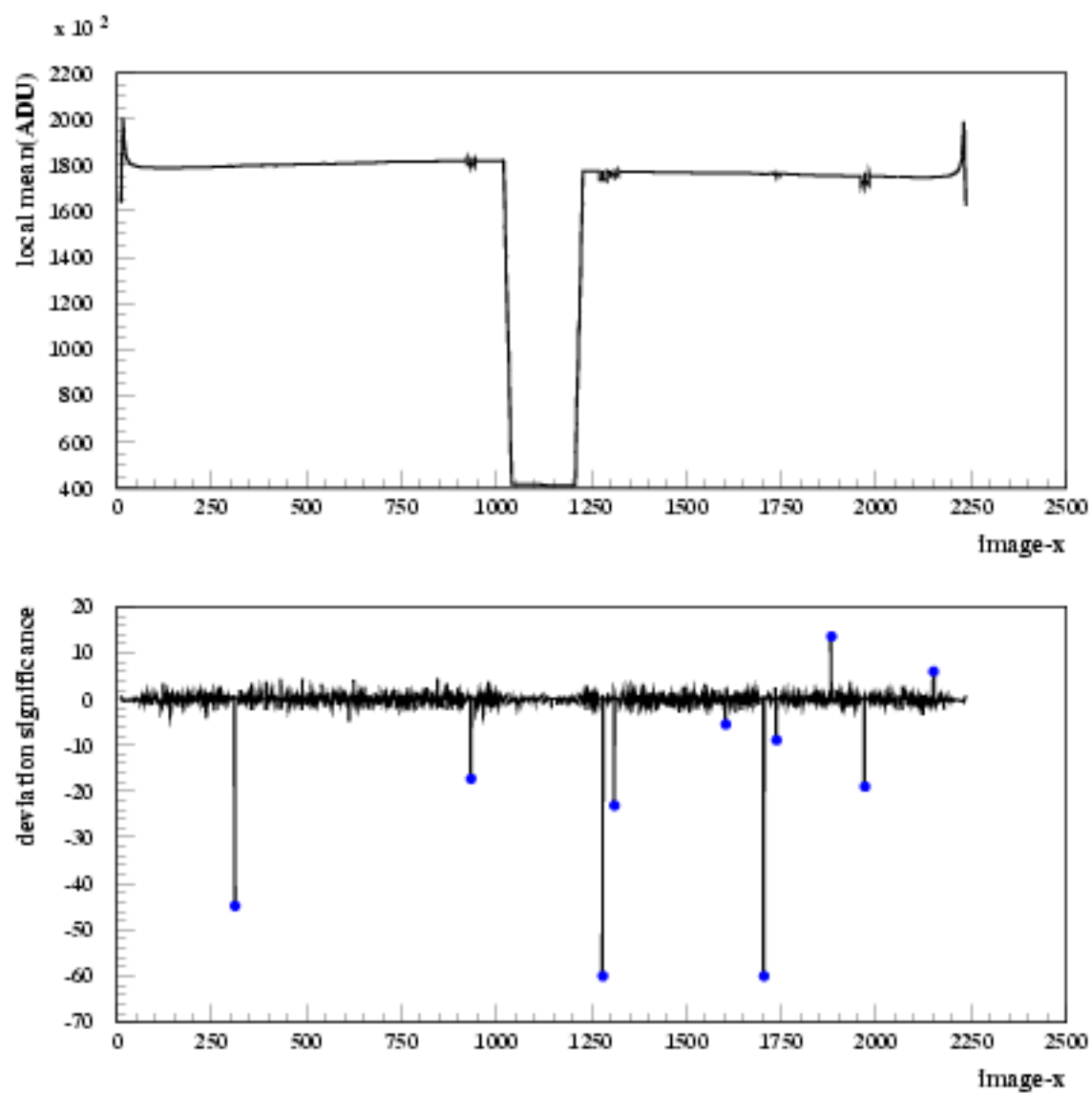


Figure 19: Top: 10 column average as a function of col for the complete CCD. Bottom: Deviation from the local average. The points in blue indicate more than 5  $\sigma$  deviation.